



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,160	12/10/2003	Robert L. Doubler	6683.99US01	5934
21917	7590	06/24/2005	EXAMINER	
MCHALE & SLAVIN, P.A. 2855 PGA BLVD PALM BEACH GARDENS, FL 33410			FERGUSON, MICHAEL P	
			ART UNIT	PAPER NUMBER
			3679	

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,160

Applicant(s)

DOUBLER ET AL.

Examiner

Michael P. Ferguson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/28/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 16 and 20 recite "wherein the self-locking taper is selected from the group consisting of Morse, Brown & Sharpe, Jarno, American National Standard Machine, Jacobs and British Standard". It is unclear as to what is positively claimed as standards frequently change. Furthermore, the examiner cannot determine the complete limitations of the standard by the original disclosure of the instant application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 11, 12 and 15-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Krüger et al. (US 6,712,544).

As to claim 1, Krüger et al. disclose a linear engaging headless fastener system comprising:

a body member **7** having an outer surface positioned about a central axis, the body member having a first end including a cavity, the cavity having an engaging surface, the engaging surface tapering inwardly from about the first end and extending toward a second end, the second end defining a clamping surface **16** (clamping on to tube **4**) adapted to provide a clamping force to an assembly;

an expander member **14** having a first end, a second end, and an outer surface positioned about a central axis, the outer surface tapering outwardly from the first end and extending toward the second end, the first end being insertable into the body member cavity;

whereby the outer surface of the expander member is constructed and arranged for coaxial alignment and engagement with respect to the engaging surface of the body member, the expander member being linearly traversable with respect to the engaging surface of the body member between first release position and second engaged position, wherein the engaged position results in the tapered surfaces circumferentially expanding the body member provide compression loading of the expander member, wherein the body member outer surface engages an aperture **4** having an inner gripping surface, and wherein the release position results in circumferential contraction of the body member outer surface thereby releasing the inner gripping surface of the aperture (Figure 1).

As to claim 2, Krüger et al. disclose a system including means **16** projecting radially from the outer surface of the body member outer surface for engagement with the inner surface of the aperture **4** locking the body member **7** in a predetermined position (Figure 1).

As to claim 3, Krüger et al. disclose a system wherein the radially projecting means includes a outwardly and circumferentially extending rib **16**, each rib including a first ramp surface to facilitate coaxially aligned linear movement of the body member **7** in relation to the inner gripping surface the aperture **7** provide a secondary clamping force upon engagement of the expander member **14** (Figure 1).

As to claim 4, Krüger et al. disclose a system wherein the circumferentially extending rib **16** includes a second ramp surface to facilitate coaxially aligned linear insertion the body member **7** into the inner gripping surface of the aperture **4** (Figure 1).

As to claim 11, Krüger et al. disclose a system wherein the clamping surface consists of a flat point (flat surface; Figure 1).

As to claim 12, Krüger et al. disclose a system wherein the body member **7** is constructed of metal (metal cross-section; Figure 1).

As to claim 15, Krüger et al. disclose a system wherein the engaging surface within the cavity is a self-locking taper.

As to claim 16, Krüger et al. disclose a system wherein the self-locking taper is selected.

As to claim 17, Krüger et al. disclose a system wherein the expander member **14** includes an internal bore extending inwardly from the first end of the expander member

Art Unit: 3679

along a longitudinal centerline, wherein the internal bore is constructed and arranged for gripping and placing a tensile load on the expander member prior to linear traversal the expansion member into the disengaged position with respect to the body member 7 (Figure 1).

As to claim 18, Krüger et al. disclose a system wherein the internal bore includes internal threads **21** (Figure 1).

As to claim 19, Krüger et al. disclose a system wherein the outer surface of the expander member **14** includes a self-locking taper.

As to claim 20, Krüger et al. disclose a system wherein the self-locking taper is selected.

As to claim 21, Krüger et al. disclose a system wherein the outer surface of the expander member **14** and the inner engaging surface of the body member **7** are constructed and arranged to maintain an axially aligned interfitting relationship in the release position (Figure 1).

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Weller (US 3,618,135).

As to claim 1, Weller discloses a linear engaging headless fastener system comprising:

Art Unit: 3679

a body member **12,12''** having an outer surface positioned about a central axis, the body member having a first end including a cavity, the cavity having an engaging surface, the engaging surface tapering inwardly from about the first end and extending toward a second end, the second end defining a clamping surface **16,17** (clamping on to cavity **10**) adapted to provide a clamping force an assembly;

an expander member **20,20''** having a first end, a second end, and an outer surface positioned about a central axis, the outer surface tapering outwardly from the first end and extending toward the second end, the first end being insertable into the body member cavity;

whereby the outer surface of the expander member is constructed and arranged for coaxial alignment and engagement with respect to the engaging surface of the body member, the expander member being linearly traversable with respect to the engaging surface of the body member between first release position and second engaged position, wherein the engaged position results in the tapered surfaces circumferentially expanding the body member provide compression loading of the expander member, wherein the body member outer surface engages an aperture **10** having an inner gripping surface, and wherein the release position results in circumferential contraction of the body member outer surface thereby releasing the inner gripping surface of the aperture (Figures 2 and 6).

As to claim 2, Weller discloses a system including means **18'** projecting radially from the outer surface of the body member **12''** outer surface for engagement with the

inner surface of the aperture locking the body member a predetermined position (Figure 6).

As to claim 3, Weller discloses a system wherein the radially projecting means includes an outwardly and circumferentially extending rib **18'**, each the rib including a first ramp surface to facilitate coaxially aligned linear movement of the body member **12''** in relation to the inner gripping surface the aperture provide clamping force upon engagement of the expander secondary member **20''** (Figure 6).

As to claim 4, Weller discloses a system wherein the circumferentially extending rib **18'** includes a second ramp surface to facilitate coaxially aligned linear insertion the body member **12''** into the inner gripping surface of the aperture (Figure 6).

As to claim 5, Weller discloses a system wherein the radially projecting means are helical threads **18'** (Figure 6).

As to claim 7, Weller discloses a system wherein the first end of the body member **12,12''** includes a driving surface, the driving surface **28,29,30,34'** constructed and arranged to cooperate with a driving tool providing rotational force to the body member (Figures 2 and 6).

As to claim 8, Weller discloses a system wherein the driving surface is capable of cooperating with a screwdriver.

As to claim 9, Weller discloses a system wherein the first end of the body member **12,12''** includes a plurality driving surfaces **28,29,30,34'**, the plurality driving surfaces constructed and arranged to cooperate with a driving tool for providing rotational force to the body member (Figures 2 and 6).

As to claim 10, Weller discloses a system wherein the plurality driving surfaces **34'** are adapted cooperate with a hex shaped tool (socket wrench; Figure 6).

As to claim 11, Weller discloses a system wherein the clamping surface consists of a flat point (Figures 2 and 6).

As to claim 12, Weller discloses a system wherein the body member **12,12''** is constructed of metal (metal cross-section; Figures 2 and 6).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krüger et al.

As to claim 6, Krüger et al. fail to disclose a system wherein the radially projecting means define ribs **16**.

Krüger et al. fail to disclose a system wherein the radially projecting means define a knurled surface. The applicant is reminded that a change in the shape of a prior art device is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a system as disclosed by Krüger et al. to have radially projecting means defining a knurled surface as such practice is a design consideration within the skill of the art.

As to claim 13 and 14, Krüger et al. disclose a system wherein the body member 7 is constructed of metal.

Krüger et al. fail to disclose a system wherein the body member is constructed of polymeric material or rubber. The applicant is reminded that the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a system as disclosed by Krüger et al. to have a body member constructed of polymeric material or rubber as such practice is a design consideration within the skill of the art.

Response to Arguments

9. Applicant's arguments filed April 11, 2005 have been fully considered but they are not persuasive.

As to claim 1, Attorney argues that:

Krüger et al. do not disclose a fastener system comprising a body member having a *second end defining a clamping surface adapted to provide a clamping force to an assembly; wherein the body member outer surface engages an aperture having an inner gripping surface.*

Examiner disagrees. As to claim 1, Krüger et al. disclose a fastener system comprising a body member 7 having a second end defining a clamping surface 16 (clamping onto tube 4) adapted to provide a clamping force to an assembly; wherein the body member outer surface engages an aperture 4 having an inner gripping surface

Art Unit: 3679

(Figure 1). A clamping surface is defined by clamping surface **16** which clamps onto an inner gripping surface of aperture **4**.

As to claim 1, Attorney argues that:

Weller does not disclose a fastener system comprising a body member having a *second end defining a clamping surface adapted to provide a clamping force to an assembly; wherein the body member outer surface engages an aperture having an inner gripping surface.*

Examiner disagrees. As to claim 1, Weller discloses a fastener system comprising a body member **12,12'** having a second end defining a clamping surface **16,17** (clamping on to cavity **10**) adapted to provide a clamping force to an assembly; wherein the body member outer surface engages an aperture **10** having an inner gripping surface (Figures 2 and 6). A clamping surface is defined by clamping surface **16,17** which clamps onto an inner gripping surface of aperture **10**.

As to claim 15, Attorney argues that:

Krüger et al. do not disclose a system *wherein the engaging surface within the cavity is a self-locking taper.*

Examiner disagrees. As to claim 15, Krüger et al. disclose a system wherein the engaging surface within the cavity is a self-locking taper (Figure 1). The body member **7** is made of a resilient material which is biased to an unexpanded state; thus defining a self-locking biased member.

As to claim 19, Attorney argues that:

Krüger et al. disclose a system *wherein the outer surface of the expander member includes a self-locking taper.*

Examiner disagrees. As to claim 19, Krüger et al. disclose a system wherein the outer surface of the expander member **14** includes a self-locking taper (Figure 1). The expander member **14** is made of a resilient material which is biased to an expanded state; thus defining a self-locking biased member.

As to claims 16 and 20, Attorney argues that the recitation of "selected from the group consisting of Morse, Brown & Sharpe, Jarno, American National Standard Machine, Jacobs and British Standard" does not render the claims indefinite.

Examiner disagrees. As to claims 16 and 20, it is unclear as to what is positively claimed as standards frequently change. Furthermore, the examiner cannot determine the complete limitations of the standard by the original disclosure of the instant application.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3679


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MPF
06/20/05

Aaron Dunwoody
Art Unit 3679


APPROVED
MPA
6/20/05

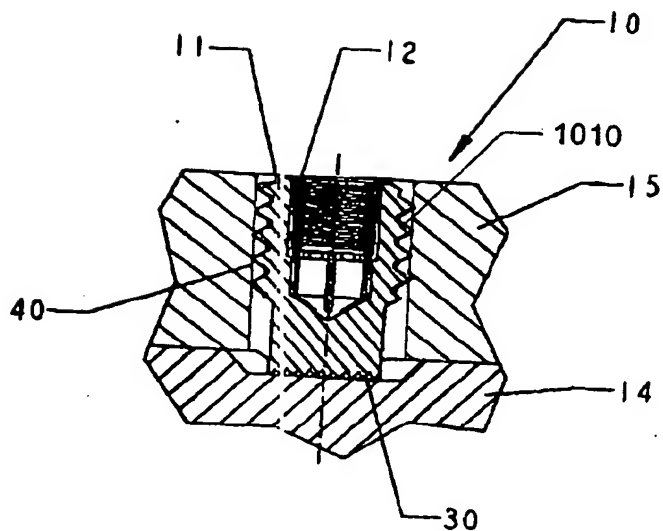


FIG. 10

New Sheet

BEST AVAILABLE COPY